IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

FINESSE WIRELESS, LLC Plaintiff, v. AT&T MOBILITY, LLC, Defendant. FINESSE WIRELESS, LLC, Plaintiff, v. CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS, Defendants, NOKIA OF AMERICA CORPORATION, ERICSSON INC., Intervenors.	§ §	CASE NO. 2:21-CV-00316-JRG (LEAD CASE) CASE NO. 2:21-CV-00317-JRG (MEMBER CASE) **<u>JURY TRIAL DEMANDED</u>**

DEFENDANTS' AND INTERVENORS'
<u>RESPONSIVE CLAIM CONSTRUCTION BRIEF</u>

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I. INTRODUCTION

The parties' proposed claim constructions reveal markedly different approaches. With respect to the means-plus-function terms, Defendants have faithfully applied the framework that the Federal Circuit set forth in *Williamson* and its progeny.[1] By contrast, Finesse advocates for overbroad constructions comprised of nonce words and expansive language that provide no guidance to the fact finder. For example, Finesse argues that instead of limiting the means-plus-function claim terms to corresponding structures clearly disclosed in the specification, the Court should import undefined and ambiguous terms into the claims such as "intermodulation compensator." But this is not a term of art and provides no more guidance to a person of skill in the art than the claim's functional language of, for example, "means for canceling out one or more [] intermodulation products." Indeed, the entire purpose of the asserted patents is to compensate for intermodulation products, yet Finesse's proposed structure for almost every claimed function is the black box word "intermodulation compensator," even though the specification discloses precise structure for each of the various functions within the claims. Finesse's means-plus-function constructions would leave the claims boundless and entirely undescribed by the claim construction process, whereas Defendants' constructions track the specific structure disclosed in the specification.

Finesse's remaining constructions fail for a variety of reasons. For example, Finesse's constructions misunderstand and conflate fundamental concepts in digital signal processing, such as the difference between sampling rate and sampling resolution. Sampling *rate* describes how frequently one samples a given signal, whereas sampling *resolution* describes the precision of any given sample, *i.e.*, the number of bits used to represent the sampled value. Finesse's constructions

[1] For brevity, Defendants and Intervenors are collectively referred to as "Defendants" herein.

also contradict one of the most basic teachings of the Federal Circuit, which is that where the patentee has explicitly defined a term in the specification, that construction binds the patentee in litigation, as is the case here with the "co-located" terms. Finally, the "convolving" term should be held indefinite because it is not described in the specification or the prosecution history, and because expert testimony conclusively proves that it is ambiguous.

The Court should adopt Defendants' constructions, which follow the explicit definitions offered by the patentee and include the meaningful structure identified in the specification.

II. DISPUTED TERMS IN THE '134 PATENT

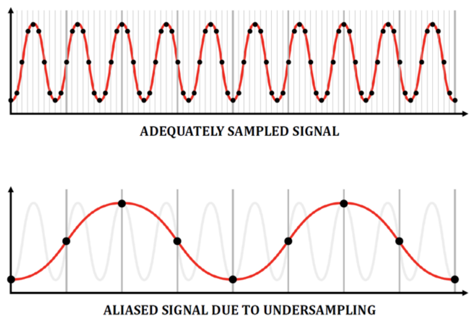
A. "means for oversampling, at a desired frequency, a passband of received signals to create a bit stream wherein the received signals include signals of interest and interference generating signals" ('134 patent, claim 2)

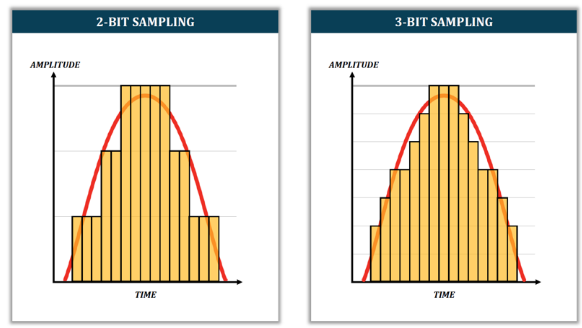
Defendants'/Intervenors' Construction	Finesse's Construction
35 U.S.C. § 112 ¶ 6: **Function:** over-sampling, at a desired frequency, a passband of received signals to create a bit stream wherein the received signals include signals of interest and interference generating signals. **Structure:** one or more sigma delta modulators or flash ADCs that generate low resolution high bit rate digital samples of the passband.	Pursuant to 35 U.S.C. § 112 ¶ 6: **Function:** over-sampling, at a desired frequency, a passband of received signals to create a bit stream, wherein the received signals include signals of interest and interference generating signals **Structure:** sampling rate multiplier comprising one or more Sigma Delta Modulators or Flash A/D converters in a radio receiver, as well as equivalents thereof

The parties agree that this term is governed by 35 U.S.C. § 112 ¶ 6 and they agree on the claimed function. The parties also agree that the structure of this term includes "one or more Sigma Delta Modulators or Flash A/D converters." However, the '134 patent teaches that the invention employs Sigma Delta Modulators or Flash A/D convertors to perform oversampling in a particular, "non-conventional way." '134 Patent at 3:10-17.[2] Specifically, the patent teaches oversampling at

[2] The '134 Patent is attached as Exhibit 1.

a high rate (or frequency) to avoid aliasing, but at a low resolution (*i.e.*, the number of bits used to represent those samples). *Id.* at 3:10-43. Importantly, sampling rate and sampling resolution are different, independent concepts. The difference is illustrated below, with different sampling rates illustrated on the left and different sampling resolutions illustrated on the right:[3]





Only Defendants' proposed construction captures the structure of the Sigma Delta Modulators or Flash A/D convertors the '134 patent teaches, which "generate low resolution high bit rate digital samples of the passband." The patent specification consistently teaches oversampling at a high rate, but at a low resolution. According to the specification, the invention uses "an over sampling technique known as a Sigma Delta Modulator, but uses it in a non-conventional way." '134 Patent at 3:10-12. In particular, "[t]he full receive band, with the signal of interest (SOI) and all of the interfering signals and sources of intermodulation products, is processed by over-sampling the entire band at ***very low quantization***." *Id.* at 3:17-20 (emphasis added).[4] In fact, the specification ***explicitly defines*** "Sigma Delta Modulator" as "[a] circuit that

[3] Defendants' Technology Tutorial, Slides 17, 19. *See also* Ex. 3 (Mahon Decl.) ¶ 70 ("While the rate at which a continuous signal is sampled is important as to whether or not any aliased artifacts appear in the sampled digital signal, the resolution at which a signal is sampled is not relevant to that question."); Ex. 4 (Wells Dep. Tr.) at 129:8-15, 130:22-131:2.

[4] All emphasis added unless otherwise noted.

generates a low resolution high rate digital sample of a wave form." *Id.* at 6:25-26; *Kyocera Senco Indus. Tools Inc. v. Int'l Trade Comm'n*, 22 F.4th 1369, 1378 (Fed. Cir. 2022) (finding lexicography limited claim).

Consistent with this teaching of sampling at a high rate but low quantization, the '134 patent teaches that in certain cases a ***low resolution*** Flash A/D converter may be used in place of a Sigma Delta Modulator. '134 Patent at 4:1-11; *See also* Ex. 3 (Mahon Decl.) ¶ 39. Emphasizing that the sampling should be conducted at low resolution, the specification states that using conventional Flash A/D converters that require higher resolution "may not be practical in cases where there are large interfering signals because the entire pass band is sampled." *Id.* The patent notes that "[o]ther attributes of this invention are the same for both of these embodiments (using a sigma delta and for using a flash A/D)," confirming that both the sigma delta and flash A/D converters are low resolution and high sampling rate. *Id.* at 4:14-16.

Finesse's proposed construction is vague, overly broad, and contrary to the intrinsic evidence. *First*, it relies on the term "sampling rate multiplier," which is not a term of art used by those skilled in the art to connote any particular structure. Ex. 3 (Mahon Decl.) ¶ 40; Ex. 4 (Wells Dep. Tr.) at 155:15-156:2. In fact, Finesse's expert had never seen the term "sampling rate multiplier" before reading the '134 patent. Wells. Dep. Tr. at 155:25-156:2 ("Q. Have you ever seen the term sampling rate multiplier before you read the '134 patent? A. Not that I recall, no."). The patent specification uses the term "sampling rate multiplier" interchangeably with other nonce terms such as cell or module and offers no more insight into any particular structure than those black-box terms do. Ex. 3 (Mahon Decl.) ¶¶ 39-40; *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1351 (Fed. Cir. 2015) (holding that the term "distributed learning control" did "not impart

structure into the term 'module'" because those "words do not describe a sufficiently definite structure.").

Second, Finesse's proposed construction ignores the patent's express teachings that oversampling is performed at a high rate but at a low resolution. As explained above, the patent specification consistently teaches oversampling using a Sigma Delta Modulator or Flash A/D converter by sampling at a high rate but low quantization.

Third, Finesse's cited examples purportedly showing oversampling at a high resolution mischaracterize the specification. For instance, Finesse's reliance on Flash A/D cell 320 is misplaced because the specification reiterates that even this usage of a Flash A/D results in "***low resolution*** 4 bit samples."[5] *Id.* 11:32-36. The embodiment discussed in column 25 at lines 45-52 of the specification does not support Finesse's construction either. That portion of the specification only states that "higher resolution samples . . . result" after both oversampling ***and*** filtering, not that the Flash A/D or sigma delta converters are creating high resolution samples. Instead, the patent consistently teaches that higher resolution is achieved ***after*** filtering the high rate low resolution samples obtained from the oversampling step. '134 patent at 3:29-34 ("These filters provide digital filtering for different signals of the receive band as well as performing the down sampling function in which the high sample rate of the Sigma Delta A/D is traded for a higher

[5] To the extent, Finesse attempts to sow confusion regarding what constitutes "low resolution" by citing to inconsistencies in the specification, Defendants address that issue in section III.F. below. In any event, the Federal Circuit specifically cautions against using a "single sentence in the specification," in contrast to overwhelming evidence in the rest of the specification, to broaden the construction of a term. *Trustees of Columbia Univ. in City of New York v. Symantec Corp.*, 811 F.3d 1359, 1366 (Fed. Cir. 2016) ("This single sentence in the specification cannot overcome the overwhelming evidence in other parts of the specification…. ***The patentee cannot rely on its own use of inconsistent and confusing language in the specification to support a broad claim construction which is otherwise foreclosed***.").

signal to noise ratio and greater quantization….”); *see also id.* at 3:59-67, 4:17-24, 4:34-47, 4:54-64, 6:25-34, 8:1-7, 11:32-36, 15:22-36, Figure 12; Ex. 3 (Mahon Decl.) ¶ 69.

Finally, Finesse argues that Defendants' construction is incorrect because it omits "equivalents thereof." This is a repeated refrain throughout Finesse's brief, but Defendants are not attempting to exclude "equivalents thereof" from any construction because the statute already provides that the claims are limited to the structure disclosed and "equivalents thereof." 35 U.S.C. § 112 ¶ 6. It is therefore unnecessary to explicitly include "or equivalents" in the claim construction. *E.g.*, *Sony Corp. v. Iancu*, 924 F.3d 1235, 1241 (Fed. Cir. 2019) (construing means-plus-function structure without reference to equivalents).

B. "means for computing an estimate of each of the one or more intermodulation products from the source signals that generate the one or more intermodulation products" ('134 patent, claim 2)

Defendants'/Intervenors' Construction	Finesse's Construction
35 U.S.C. § 112 ¶ 6: **Function:** computing an estimate of each of the one or more intermodulation products from the source signals that generate the one or more intermodulation products **Structure:** general purpose processor; algorithm: estimating the frequency of each of the one or more intermodulation products by multiplying source signals that generate the one or more intermodulation products with each other in the time domain, and estimating the amplitude of each of the one or more intermodulation products using the IIP3 or IIP2 estimate of the system	Pursuant to 35 U.S.C. § 112 ¶6: **Function:** computing an estimate of each of the one or more intermodulation products from the source signals that generate the one or more intermodulation products **Structure:** a radio receiver with an intermodulation compensator, as well as equivalents thereof

The parties agree that this term is governed by 35 U.S.C. § 112 ¶ 6. The parties also agree that the claimed function is "computing an estimate of each of the one or more intermodulation

products from the source signals that generate the one or more intermodulation products." The dispute centers on what is the corresponding structure disclosed in the '134 patent specification.

"[S]tructure disclosed in the specification is corresponding structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." *Rain Computing, Inc. v. Samsung Elecs. Am., Inc.*, 989 F.3d 1002 (Fed. Cir. 2021). Defendants' proposed construction is the specific structure, *i.e.*, a processor, that performs the "computing" function according to the specification. The specification explains that "[a] processor 220 computes the expected in-band interfering signals . . . ." '134 Patent at 9:34-37; *see also* '134 Patent at 10:9-12 ("Processor 220A and processor 220B are used to compute the estimate of the in band interference signals which will be used to cancel the interference signal inband of the SOI."). In every disclosed embodiment, the claimed computation of estimates is performed only in such generic processing modules. *Id.* at 11:49-55 ("intermodulation products generation module 341"), 16:34-38 ("intermodulation products generator 416"), 22:44-55 ("processing block 630" and "processing block 635"); Ex. 3 (Mahon Decl.) ¶ 48.

Further, "[i]n a means-plus-function claim in which the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm, the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm." *Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). In other words, the corresponding structure for a § 112 ¶ 6 claim for a computer-implemented function ***is*** the algorithm disclosed in the specification. *Harris Corp. v. Ericsson Inc.*, 417 F.3d 1241, 1254 (Fed. Cir. 2005) (holding corresponding structure for claimed "time domain processing means" was a microprocessor programmed to carry out a specific two-step algorithm disclosed in the specification). Likewise here, the specification describes a particular two-step

algorithm used to estimate the intermodulation products, which is that the frequencies of the intermodulation products are estimated by multiplying samples of the source signals in the time domain, and their amplitudes are estimated using the input intercept points for the second and third order intermodulation products of the system. ’134 Patent at 6:22-24, 9:9-12, 9:34-37, 11:49-55, 15:15-18, 16:34-38, 16:48-50, 17:52-55, 17:60-62, 22:43-49. Defendants’ construction captures this algorithm. *See* Ex. 3 (Mahon Decl.) ¶ 49.

Finesse’s proposed construction of “a radio receiver with an intermodulation compensator” is unhelpful and incorrect because “intermodulation compensator” is neither a term of art connoting structure nor is it specifically tied to the “computing an estimate” function. *First*, as with the “sampling rate multiplier,” Finesse’s expert admitted that he has never come across the term “intermodulation compensator” outside of the ’134 patent:

> Q. Okay. Is intermodulation compensator a term of art?
> A. I hadn’t provided an opinion on that. I don’t know.
> Q. Do you know if you can buy an intermodulation compensator from, say, Texas Instruments or Analog Devices or Qualcomm or some similar manufacturer in the industry?
> A. I don’t know. I haven’t looked.
> ***Q. Have you come across the term intermodulation compensator before you read the ’134 patent?***
> ***A. I don’t recall that I have, no.***

Ex. 4 (Wells Dep. Tr.) at 158:5-19.[6] As such, Finesse’s construction of a “radio receiver with an intermodulation compensator” does not itself connote any meaningful structure to a person of ordinary skill in the art. *See* Ex. 3 (Mahon Decl.) ¶ 50. Not even Finesse’s expert could explain what components make up an intermodulation compensator. Ex. 4 (Wells Dep. Tr.) at 160:24-161:6 (“Q. [I]f I’m trying to build an intermodulation compensator, which one of these components

[6] Objections omitted from deposition testimony unless otherwise noted.

do I need? A. Well, I can't answer that. I haven't thought about that."); *see also id.* at 168:17-25, 169:8-12.

Second, the '134 patent specification describes the "intermodulation compensator" as having several sub-components each of which perform a different function. *See, e.g.*, '134 Patent at Figs. 2A and 2B, 7:23-10:27, Claim 48. It is improper to include structure in the construction "beyond that necessary to perform the claimed function." *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999). In Figure 2A, processor 220 is shown as being within the dotted line forming "Intermodulation Compensator 204." Similarly, in Figure 2B, processor 220B is labeled "compute inter-modulation products from source signals" and is depicted within intermodulation compensator 204. *See also id.* at Claim 48 (intermodulation compensator comprises "a processor … to compute expected in-band interfering signals"). Therefore, even if the "intermodulation compensator" includes a processor, it is the processor alone that is necessary to perform the claimed function, and adding the unnecessary (and as explained above, ambiguous) structure of the intermodulation compensator would be improper.

Relying on *Qualcomm Inc. v. Intel Corp.*, 6 F.4th 1256 (Fed. Cir. 2021), Finesse also argues that the corresponding structure should not be limited by a particular algorithm because the claimed function can be implemented in an application specific IC ("ASIC"). *See* Pl. Br. at 10-11. But *Qualcomm* does not stand for the proposition that all ASICs have a known, fixed structure and are thus exempt from any algorithm requirement. 6 F.4th at 1265-67. In *Qualcomm*, the Federal Circuit found no algorithm requirement because the corresponding structure of the means-plus-function term in that case was "***a power tracker***," which is "understood by persons of ordinary skill in the art to include a range of ***specific structural circuits***." *Id.* That is not the case here. The '134 patent specification does not disclose a specific circuit structure for "computing an estimate,"

beyond the processors and corresponding algorithm identified by Defendants. Indeed, Finesse never identifies any specific circuit structure that performs the recited function beyond its overly broad and vague suggestion that the recited function is performed by an "intermodulation compensator." But as explained above, "intermodulation compensator" is not a term of art connoting specific structure to one of ordinary skill in the art, and is itself described in the specification as including black-box subcomponents such as the processors that compute estimates of intermodulation products.

Lastly, Finesse argues that Defendants' proposed algorithm is wrong. But tellingly, Finesse never identifies any other algorithm for performing the "computing" function. In fact, Dr. Wells testified that the '134 Patent specification does not disclose an algorithm for "computing an estimate" at all:

> Q. Does the patent disclose an algorithm of computing an estimate for each of one or more of the intermodulation products from the source signals?
> A. I don't think it specifically includes an algorithm, but it includes the structure for performing that function.

Ex. 4 (Wells Dep. Tr.) at 171:2-9; *see also id.* at 183:8-20, 183:21-184:7. If Dr. Wells is correct that the patent does not disclose an algorithm, then the claim would be indefinite for citing insufficient structure. *See Rain Computing, Inc.*, 989 F.3d at 1007 (holding that without an algorithm to achieve the claimed function the term was indefinite). But in any case, the Court should not credit Finesse's argument that Defendants' algorithm is incorrect when it has not suggested an alternative and not even its expert could identify one.

C. "means for canceling out one or more inband intermodulation products using the estimate of the intermodulation products" ('134 patent, claim 2)

Defendants'/Intervenors' Construction	Finesse's Construction

35 U.S.C. § 112 ¶ 6: **Function:** canceling out one or more inband intermodulation products using the estimate of the intermodulation products **Structure:** an inverter and an adder	Pursuant to 35 U.S.C. § 112 ¶6: **Function:** canceling out one or more inband intermodulation products using the estimate of the intermodulation products **Structure:** a radio receiver with an intermodulation compensator, as well as equivalents thereof

The dispute with respect to "means for canceling out one or more inband intermodulation products using the estimate of the intermodulation products," is very similar to the prior term. Again, the parties agree that this limitation is governed by 35 U.S.C. § 112 ¶ 6 and further agree on the function. The only question is what structure is disclosed in the specification that performs the "canceling" function.

Defendants' proposed structure is taken directly from the specification, which describes that the "canceling" function is performed by an inverter and an adder. '134 Patent at 9:39-44 ("The estimate of the interfering signal is inverted to produce a cancellation signal 224. An adder 226 adds the inverted cancellation signal 224 into the original desired signal from FIR filter 206 to cancel interference signals within the original Signal of Interest (SOI)."), 11:58-62 ("A cancellation summing cell 343 inverts and combines both of these signals with the filtered signal-of-interest to produce a signal-of-interest with the intermodulation interference canceled."); *see also* Ex. 3 (Mahon Decl.) ¶ 53 (explaining all of the embodiments only disclose using an inverter and adder as described herein to perform the "canceling" function).

Finesse again identifies "a radio receiver with an intermodulation compensator" as the structure corresponding to the "canceling" function. And again, this is incorrect because "intermodulation compensator" is not a term of art, and therefore a person of ordinary skill in the art would be unable to ascertain what structure is captured by the term. *See supra*; Ex. 3 (Mahon Decl.) ¶ 54. Furthermore, the "canceling" function is tied to an inverter and an adder, and even if

those components are located within the intermodulation compensator, it would be error to identify the entire intermodulation compensator as corresponding structure. *See* '134 Patent at Claim 48; *Micro Chem., Inc.*, 194 F.3d at 1258.

Moreover, the portions of the specification that Finesse cites confirm that the "canceling" function is performed by an inverter and an adder. *See* Pl. Br. at 14. For example, Finesse cites to column 11 describing intermodulation canceling cell 340 and its components. *See id.* The cited passage explains canceling through "inverting" and "combining" signals: "[a] cancellation summing cell 343 inverts and combines both of these signals with the filtered signal-of-interest to produce a signal-of-interest with the intermodulation interference canceled." *Id.* Unsurprisingly, Finesse's expert was unable to identify any components other than an inverter and adder that perform the "canceling function":

> Q. Okay. Have you come across any other embodiments of the intermodulation compensator where the means for cancelling function is performed by something other than an inverter and an adder?
> A. Within the intermodulation compensator, no, I haven't.

Ex. 4 (Wells Dep. Tr.) at 195:15-196:4. Given the clear disclosure in the specification that the "canceling" function is performed by an inverter and an adder, Defendants' construction should be adopted.

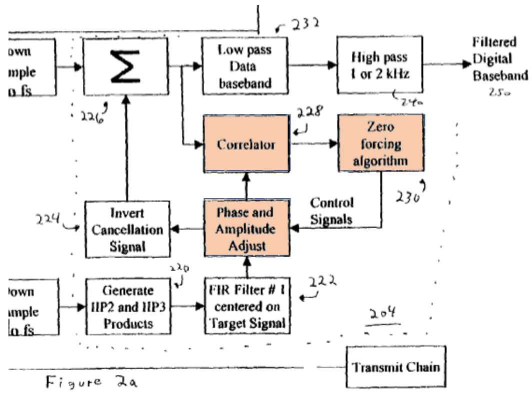
D. "means for performing phase and amplitude adjustment on estimations of the intermodulation product interfering signals in a closed loop manner, wherein the means for performing phase and amplitude adjustment of the estimations comprises means for performing subsample phase shifts to make a phase adjustment on the estimations of the intermodulation product interfering signals" ('134 patent, claim 2)

Defendants'/Intervenors' Construction	Finesse's Construction
35 U.S.C. § 112 ¶ 6: **Function:** performing phase and amplitude adjustment on estimations of the	Pursuant to 35 U.S.C. § 112 ¶6: **Function:** performing phase and amplitude adjustment on estimations of the intermodulation product interfering signals in a

intermodulation product interfering signals in a closed loop manner **Structure:** general purpose processor; algorithm as disclosed in col. 17, lines 4-51	closed loop manner, wherein the means for performing phase and amplitude adjustment of the estimations comprises means for performing subsample phase shifts to make a phase adjustment on the estimations of the intermodulation product interfering signals **Structure:** a radio receiver with an intermodulation compensator, and equivalents thereof

Defendants' proposed construction is for the limitation "means for performing phase and amplitude adjustment on estimations of the intermodulation product interfering signals in a closed loop manner," rather than the longer phrase construed by Finesse. With respect to this limitation, the recited function is "performing phase and amplitude adjustment on estimations of the intermodulation product interfering signals in a closed loop manner." Defendants do not dispute that the subsequent wherein clause limits the claim but do not think it needs to be captured as part of the function of "performing phase and amplitude adjustment" element. Regardless, Defendants' proposed algorithm addresses the "subsample phase shifts" claimed in the wherein clause.

The remaining dispute with respect to this term mirrors the parties' dispute for the "means for computing" term. The specification again only discloses black-box functional units for performing particular calculations and implementing specific algorithms in connection with the "phase and amplitude adjustment" function. For example, in the embodiment described in figure 2A, the recited function is performed using the functional units highlighted below. *See* '134 Patent at 9:45-59.



Therefore, as described above in relation to the "means for computing" limitation, the structure should be limited to the processor programmed to perform the disclosed algorithm. *Harris Corp.*, 417 F.3d at 1253. And like the "means for computing," the specification describes a particular two-step, recursive algorithm used perform the claimed phase and amplitude adjustment. Ex. 3 (Mahon Decl.) ¶ 57-58. *First*, the estimate of the intermodulation products is cross-correlated with the result of the cancellation (*i.e.*, the addition between the signal of interest and the inverted estimate of the intermodulation product). '134 patent at 9:45-59, 16:53-63, 17:4-51. *Second*, the result of this correlation is used to generate control signals to adjust the phase and amplitude of the estimate of the intermodulation products to minimize the correlation using an adaptive algorithm such as a dither algorithm or zero forcing algorithm. *Id.* The correlation step may be performed using one or two correlators (one for phase correction and one for amplitude correction). *Id.* at 16:53-63, 17:4-51. Phase adjustments at the subsample level are performed using a weighted interpolation. *Id.* at 17:35-50, Figure 11.

For the third time, Finesse identifies "a radio receiver with an intermodulation compensator" as the corresponding structure for the "phase and amplitude adjustment" function. Again, this is incorrect because intermodulation compensator is not a term of art, and the specification again describes sub-components within the intermodulation compensator that perform the phase and amplitude adjustment algorithm disclosed. *See Micro Chem., Inc.*, 194 F.3d

at 1258. And to the extent the recited function may be implemented in an ASIC, the only guidance in the specification on the structure of such an ASIC is the algorithm included in Defendants' construction. As before, Finesse's proposed construction does nothing to clarify the scope of the claims, and should be rejected. *See* Ex. 3 (Mahon Decl.) at ¶ 59.

E. "Unit" / "Adjuster" Terms ('134 Patent, claim 3)

Term	Defendants'/Intervenors' Construction	Finesse's Construction
"a sampling unit to sample, at a desired frequency, a passband of received signals to create a bit stream, wherein the received signals include signals of interest and interference generating signals"	35 U.S.C. § 112 ¶ 6: **Function:** sample, at a desired frequency, a passband of received signals to create a bit stream **Structure:** one or more sigma delta modulators or flash ADCs that generate low resolution high bit rate digital samples of the passband	Plain and ordinary meaning. To the extent the Court believes this term is governed by 35 U.S.C. § 112 ¶6: **Function:** sample, at a desired frequency, a passband of received signals to create a bit stream, wherein the received signals include signals of interest and interference generating signals **Structure:** sampling rate multiplier comprising one or more Sigma Delta Modulators or Flash A/D converters in a radio receiver, as well as equivalents thereof
"a cancellation unit to cancel out isolated interference generated signals using estimations of the intermodulation products generated by the isolated interfering signals, wherein the estimations of the isolated interfering signals comprise estimations of intermodulation	35 U.S.C. § 112 ¶ 6: **Function:** cancel out isolated interference generated signals using estimations of the intermodulation products generated by the isolated interfering signals **Structure:** an inverter and an adder	Plain and ordinary meaning. To the extent the Court believes this term is governed by 35 U.S.C. § 112 ¶6: **Function:** canceling out isolated interference generated signals using estimations of the intermodulation products generated by the isolated interfering signals, wherein the estimations of the isolated interfering signals comprise

products falling inband of the signals of interest”		estimations of intermodulation products falling inband of the signals of interest **Structure:** a radio receiver with an intermodulation compensator, as well as equivalents thereof
“a phase and amplitude adjuster to adjust the phase and amplitude of estimations of the isolated interfering signals in a closed loop manner, wherein the phase and amplitude adjuster performs phase and amplitude adjustment of the estimations by making sub-sample phase shifts to make a phase adjustment on the estimations of the isolated interfering signals”	35 U.S.C. § 112 ¶ 6: **Function:** adjust the phase and amplitude of estimations of the isolated interfering signals in a closed loop manner, wherein the phase and amplitude adjuster performs phase and amplitude adjustment of the estimations by making sub-sample phase shifts to make a phase adjustment on the estimations of the isolated interfering signals **Structure:** general purpose processor; algorithm as disclosed in col. 17, lines 4-51.	Plain and ordinary meaning. To the extent the Court believes this term is governed by 35 U.S.C. § 112 ¶6: **Function:** performing phase and amplitude adjustment on estimations of the intermodulation product interfering signals in a closed loop manner, wherein the means for performing phase and amplitude adjustment of the estimations comprises means for performing subsample phase shifts to make a phase adjustment on the estimations of the intermodulation product interfering signals **Structure:** a radio receiver with an intermodulation compensator, and equivalents thereof

The parties dispute whether § 112, ¶ 6 applies to “a sampling unit to sample,” “a cancellation unit to cancel,” and “a phase amplitude adjuster to adjust.” Because “a sampling unit,” “a cancellation unit,” and “a phase amplitude adjuster” are nonce terms that correspond to no known class of structures and could cover any device that performs the claimed functions, the Court should find that these terms and their recited functions are governed by § 112, ¶ 6.

Williamson v. Citrix Online, LLC, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (presumption that § 112, ¶ 6 does not apply is overcome where a claim term "fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function"); *see also Canon, Inc. v. TCL Elecs. Holdings Ltd.*, No. 2:18-cv-546-JRG, 2020 WL 2098197, at *25 (E.D. Tex. May 1, 2020) ("'unit' is a nonce term that can be 'tantamount to using the word means'" under *Williamson*). Moreover, because these nonce words merely perform the same functions as the admitted means-plus-function terms discussed above, they should be given the same scope. *See* Pl. Br. at 18-20 (noting that the disputes are "identical" to the disputes for the corresponding express "means for" terms).

As noted in the *Zeroclick* case cited by Finesse, the test is whether "the term, as the name for a structure, has a reasonably well understood meaning in the art." *See Zeroclick LLC v. Apple, Inc.*, 891 F.3d 1003, 1007 (Fed. Cir. 2018). Finesse's opening brief conspicuously omits any allegation that "a sampling unit," "a cancellation unit," or "a phase amplitude adjuster" refer to well-known structures—because they do not. Ex. 3 (Mahon Decl.) ¶¶ 60-65; *see also Indacon, Inc. v. Facebook, Inc.*, 824 F.3d 1352, 1357 (Fed. Cir. 2016); *Intervet Inc. v. Merial Ltd.*, 617 F.3d 1282, 1287 (Fed. Cir. 2010). Tellingly, Finesse relies on inapposite case law stating that the recitation of a "circuit" is sufficiently structural when coupled "with a description of the circuit's operation." *See Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1320 (Fed. Cir. 2004). Unlike *Linear Tech.*, however, where the court found that "[t]echnical dictionaries, which are evidence of the understandings of persons of skill in the technical arts, plainly indicate that the term 'circuit' connotes structure," Finesse provides no such extrinsic evidence here with respect to "a sampling unit," "a cancellation unit," or "a phase amplitude adjuster." *See id.* Indeed, Finesse states, without support, that "the claim language already recites enough structure" yet does not

even attempt to provide any structure associated with these terms. *See* Pl. Br. at 18; *see also id.* at 20. Instead, Finesse relies on purely functional language of the claim as purportedly providing supporting structure. For example, Finesse states that with respect to "a sampling unit," the claimed "wherein the received signals include signals of interest and interference generating signals" somehow imparts structure into the claim. *Id.* at 18. Finesse's reliance on additional functional language only proves that the terms impose no limits on types of structure and allow for any device that performs the function of "sampl[ing], at a desired frequency, a passband of received signals to create a bitstream."

The fact that these terms do not have an established meaning in the art undercuts Finesse's allegation that they connote sufficient structure. *Indacon*, 824 F.3d at 1357. Such terms with no established meaning "cannot be construed broader than the disclosure in the specification." *Id.* These terms are akin to the term "symbol generator" examined by the Federal Circuit in *Advanced Ground Information Sys., Inc. v. Life360, Inc.*, 830 F.3d 1341, 1348 (Fed. Cir. 2016). In that case, the Federal Court found that § 112, ¶ 6 applied to the term "symbol generator" because the term "by itself, does not identify a structure by its function." *Id.*

Recognizing its lack of well-known structures for these terms, Finesse suggests that because the patentee used explicit "means for" language in claim 2 but did not do so for claim 3, this serves as some "indicat[ion] that the term should not be construed as a means-plus-function term." *See* Pl. Br. at 17, 19-20. However, simply using express means-plus-function language in one claim does not free all other patent claims from § 112 ¶ 6, and would "blindly elevate form over substance" as *Williamson* cautioned courts to avoid. *See Williamson*, 792 F.3d at 1348. The test is not whether the patentee *intended* on using "means for" claiming language, but rather whether "the words of the claim are understood by persons of ordinary skill in the art to have a

sufficiently definite meaning as the name for structure." *See id.* at 1348. Because none of the terms at issue identify any structure, § 112, ¶ 6 applies. When properly considered under § 112, ¶ 6, the same corresponding structures outlined in sections II.A, C, and D apply.

F. "oversampling . . . at a low resolution" ('134 patent, claim 20)

Defendants'/Intervenors' Construction	Finesse's Construction
low resolution means "less than or equal to 4 bits"	Plain and ordinary meaning. Alternatively, to the extent that the Court believes this term requires construction: "oversampling . . . at a resolution that avoids aliasing"

The dispute between the parties is whether the term "resolution" in claim 20 refers to the rate at which oversampling is performed or the precision with which samples are measured (*i.e.*, the number of bits used to represent each sample or level of quantization). Consistent with how these basic terms are understood by skilled artisans in the field, the term "resolution" in claim 20 refers to the precision with which oversampling is performed. This is confirmed by both the intrinsic evidence and the extrinsic evidence, including Finesse's own expert. Furthermore, only Defendants' construction places any limits on the otherwise ambiguous term of degree "low resolution," which the specification implicitly defines as having less than or equal to 4 bits.

As discussed *supra* at Section II.A., the sampling rate refers to the rate at which samples of the signal are taken, as Finesse's expert admitted. *See* Ex. 4 (Wells Dep. Tr.) at 127:4-24. Further, each one of these samples can be represented using any number of bits independent of the sampling rate, which is the sampling resolution. *See id.* at 129:8-15, 130:22-131:2; *see also* Ex. 3 (Mahon Decl.) ¶ 70.

The '134 patent recognizes this distinction between the rate at which a signal is sampled and the resolution (or number of bits) with which those samples are measured. As explained above

with respect to the "means for oversampling" limitation, the patent teaches oversampling at a ***high rate*** at which samples are measured to avoid aliasing, but at a ***low resolution*** (*i.e.*, the number of bits used to measure samples). Throughout the specification, the patent consistently recognizes the distinction between the sampling rate and the sampling resolution, and teaches oversampling at low quantization levels, *i.e.*, at a low resolution. *See, e.g.*, *id.* at 3:10-34, 3:59-67, 4:17-24, 4:34-47, 4:54-64, 6:25-34, 8:1-7, 11:32-36, 15:22-36, Figure 12. Finesse's own expert agrees that the patent draws this distinction between the sampling rate and sampling resolution:

> Q. So the patent discusses this distinction between sampling rate and quantization levels, correct?
> A. ***It talks about over-sampling, which would be done at a sampling rate. Then it talks about low -- very low quantization***.

Ex. 4 (Wells Dep. Tr.) at 136:10-21; *see also id.* at 137:7-13. Critically, Finesse's expert also concedes that the term "low resolution" in claim 20 refers to the quantization level of the samples, not the rate at which sampling is performed:

> Q. [T]he term low resolution as it's used in Claim 20 here is referring to the quantization level of the sample that's being measured as the signal is being over-sampled, right?
> A. Well, ***it's the resolution of the generated sample data stream***.
> ***Q. Which would be the number of bits used to represent each sample, right?***
> ***A. Yes.***

Id. at 139:8-19.

The fact that the patent teaches oversampling using Sigma Delta A/D techniques only further confirms that "low resolution" in the '134 patent is a reference to the precision (or number of bits) with which samples are measured. *See* Ex. 3 (Mahon Decl.) ¶¶ 71-73. Sigma Delta A/D techniques do not require high resolutions because instead of measuring the actual signal, they only measures changes in the signal. *Id.* ¶ 71. Using this approach, even a 1-bit resolution (as the patent teaches) can be sufficient if sampling at a high rate. *Id.* For example, "a single bit ('1' or

'0') can be used to indicate whether the current sample is higher or lower than the previous sample. By repeating this exercise at a high rate, this technique allows for sampling with much lower resolution. *Id.*

Only Defendants' construction provides any guidance as to the bounds for what a "low resolution" could be within the meaning of claim 20. Throughout the specification, the '134 patent repeatedly describes quantization levels at or below 4 bits as "low resolution." *See* '134 patent at 3:10-34 (1 or 2 bits), 4:34-47 (1 or 2 bits), 8:1-7 (1 bit), 11:32-36 (4 bits), 15:22-36 (4 bits), Claim 13 (4 bits). In two instances, the patent refers to a medium resolution being approximately 4 bits. *Id.* at 11:12-14 ("The flash A/D cell 320 uses a flash A/D module to sample the receive band to a medium resolution (approximately 4 bits) at a high enough rate to avoid aliasing."), 15:23-27 ("In one embodiment, flash A/D converter 424 is a low to medium resolution A/D converter (around 4 bits) that samples the entire band in which source signals can exist and which have the potential to produce intermodulation products inband of the SOL."). As such, reading the claims in light of the specification, a person of ordinary skill in the art would understand the claimed "oversampling" step to mean oversampling at a resolution less than or equal to 4 bits. Ex. 3 (Mahon Decl.) ⁋ 69.

The patent provides no other guidance or measure for what would or wouldn't constitute a "low resolution," and absent Defendants' proposed construction, "low resolution" becomes an indefinite term of degree. *See, e.g.*, *Core Wireless Licensing S.A.R.L. v. LG Elec., Inc.*, Case No. 2:14–cv–0911–JRG–RSP, 2015 WL 6746910, at *16 (E.D. Tex. Nov. 4, 2015) (evaluating the term "low" as a "term of degree" as part of claim construction analysis). Indeed, outside the examples provided in the specification, Finesse's expert could provide no objective limit for what would be a "low resolution" other than the circular and conclusory statement that "[l]ow just means that it's not high." Ex. 4 (Wells Dep. Tr.) at 139:20-141:2, 146:5-17. In fact, Finesse's expert

concedes that, absent the specific examples in the specifications cited by Defendants, one of ordinary skill would have no way of knowing what level of precision would meet the "low resolution" term in claim 20:

> Q. Sitting here today, do you have an opinion on whether or not there is a standard by which you can measure the number of bits that would fall within low resolution as the term is recited in Claim 20?
>
> A. Well, I mean, ***I understand that low is not high. There's a difference between the two. But where that boundary is, I can't put a number on that***, without importing limitations from the claim -- from the patent specifications which I understand is not permissible.

Id. at 146:5-17.

Finesse's proposed construction, on the other hand, confuses sampling resolution with sampling rate because it states that a sampling resolution may avoid aliasing, rather than a sampling rate. This is incorrect. Indeed, the single sentence from the specification relied on by Finesse, Pl. Br. at 21-22, confirms that sampling must happen at a "high enough ***rate*** to preclude aliasing." *Id.* at 22 (citing '134 Patent at 4:44-47). The fact that the specification discloses high rate but low resolution sampling is consistent with Defendants' position discussed above with respect to the "means for oversampling" term. '134 Patent at 3:10-34, 3:59-67, 4:17-24, 4:34-47, 4:54-64, 6:25-34, 8:1-7, 11:32-36, 15:22-36, Figure 12. Moreover, upon cross examination Dr. Wells admitted that the term "low resolution" refers to the quantization level of the samples, not the rate at which sampling is performed, undercutting any reliance on his opinions. Ex. 4 (Wells Dep. Tr.) at 139:8-19.

III. DISPUTED TERMS IN THE '775 PATENT

A. "a transmitter and the receiver being co-located with each other" / "a receiver co-located with a transmitter" / "co-located receiver" ('775 patent, claims 1, 4, 115-17, 21, 24, 35-37)

Defendants'/Intervenors' Construction	Finesse's Construction

a receiver located in the vicinity of, but not associated with, the transmitter	Plain and ordinary meaning. Alternatively, to the extent that the Court believes these terms require construction: "co-located receiver" – the definition in the specification applies, and the phrase means "a receiver located in the vicinity of the self communications terminal, but not associated with the self terminal," where "self communications terminal" and "self terminal" mean "the receiver and transmitter of the target system (central system to discussion)" "transmitter and the receiver being co-located with each other" / "receiver co-located with [a/the] transmitter" – in these instances, "co-located" means "in the vicinity [of]"

Defendants' proposed construction flows directly from the explicit definitions of co-located receiver and co-located transmitter provided by the patent, and therefore it should be adopted. Finesse's proposed construction, on the other hand, applies an unnecessarily complex nested definition of these terms while at the same time removing the key definitional requirement that the co-located receiver not be "associated with" the transmitter.

The '775 Patent includes a section titled "DEFINITIONS," where the Patent defines the concepts of "co-located" receivers and transmitters, "companion" receivers and transmitters, and a "self terminal." '775 Patent at 5:63-6:14.[7] The patent explains that a "self terminal" is composed of "[t]he receiver and the transmitter of the target system (the central system to discussion)." *Id.* at 5:65-67. In other words, the system that is being targeted as the generator of the intermodulation products to be cancelled has a transmitter (called a "companion transmitter") and a receiver (called a "companion receiver"), and together the companion transmitter and the companion receiver

[7] The '775 Patent is attached as Exhibit 2.

make up what the patent calls a "self terminal." *Id*. at 6:1-6. The "companion" transmitter and receiver are said to be "*associated with*" one another. *Id*. (emphasis added).

The patent contrasts the "companion" transmitter and "associated" receiver of the self terminal with a "co-located" transmitter and receiver. While the "companion" receiver and transmitter are "associated with" one another, the "*co-located receiver*" is "located in the vicinity of," but is "*not associated with*" the transmitter of the self terminal. *Id*. at 6:7-9 (emphasis added). Similarly, the "*co-located transmitter*" is "located in the vicinity of," but is "*not associated with*" the receiver of the self terminal. *Id*. at 6:10-12 (emphasis added). The patent seeks to cancel the intermodulation products generated by a co-located transmitter and being seen at the "co-located receiver." '775 Patent at 6:24, 42-43 ("The IMP Sources are the Following: . . . Passive IMPs generated in co-located high power transmitters."); 6:15-19 ("The Impacted Receivers are: . . . Co-located receiver.").

For example, asserted Claim 24 recites "circuitry to cancel passive intermodulation products (IMPs) in the co-located receiver," with that circuitry configured to "generate, with a priori knowledge of a transmitter signal set, continuous and real time IMP cancellation signals (ICSs) in a baseband digital signal set of the co-located receiver based on the transmitter signal set." '775 Patent, 19:53-60. As defined in the specification, the "co-located receiver" is "located in the vicinity of, but not associated with" the claimed transmitter (the source of the intermodulation products to be cancelled). Thus, Defendants' construction of this term comes directly from the specification's express definition of this term, placed in context of the language of Claim 24. The same analysis applies to the term "co-located receiver" appearing in Claims 15, 35, 36, and 37.

This analysis also applies to the related terms "receiver co-located with [a/the] transmitter" and "transmitter and receiver being co-located with each other." For example, Claim 24 begins by reciting "a transmitter; [and] a receiver co-located with the transmitter." It next recites "circuitry to cancel passive intermodulation products (IMPs) in ***the*** co-located receiver." In this claim, "***the*** co-located receiver" necessarily refers back to the antecedent "a receiver co-located with the transmitter," and the patent uses those terms interchangeably. *See NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1306 (Fed. Cir. 2005) ("[I]t is a rule of law well established that the definite article 'the' particularizes the subject which it precedes."); *Wasica Fin. GmbH v. Cont'l Auto. Sys.*, 853 F.3d 1272, 1282 (Fed. Cir. 2017) ("The interchangeable use of the two terms is akin to a definition equating the two.") (quoting *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1330 (Fed. Cir. 2009)). And, as explained above, the patent expressly defines co-located receiver as a receiver located in the vicinity of, "*but not associated with*," the self terminal (or in Claim 24, the claimed transmitter).

Each of these claims recites a transmitter that is generating IMPs that are to be canceled in a receiver that is "co-located" with the transmitter. For example:

- Claim 1 recites "performing interference cancellation in a receiver, with a transmitter and the receiver being co-located with each other" and "generating intermodulation product (IMP) cancellation signals (ICSs) to cancel passive IMPs in the receiver, continuously and near real time, using copies of transmitter signals of the transmitter";

- Claim 4 recites "a receiver co-located with a transmitter" and generating IMP cancellation signals "based on the transmitter signal set";

- Claim 16 recites "the receiver co-located with a transmitter that generates the transmitter signal" and generating IMP cancellation signals for "IMPs being generated after a high powered amplifier (HPA) and a transmitter filter of the transmitter";

- Claim 17 recites "the receiver co-located with a transmitter, the passive IMP cancellation to cancel passive IMPs generated after a high powered amplifier (HPA) and a transmitter filter of the transmitter"; and

- Claim 21 recites "a receiver co-located with the transmitter" and generating IMP cancellation signals for ""IMPs being generated after a high powered amplifier (HPA) and a transmitter filter . . . used by the transmitter."

By the express definition in the patent's specification, and in context of the claim language at issue, each "co-located" receiver necessarily is referring to a receiver that is in the vicinity of, *but not associated with*, the claimed transmitter. Thus, Defendants' construction clarifies the relationship between the components that generate intermodulation products and those where intermodulation products are canceled.

The Court should reject Finesse's attempt to apply an unnecessarily complex nested definition for the "co-located receiver" terms, and further should reject Finesse's attempt to remove "not associated with" from the patent's express definition of the term.

B. "convolving a composite transmitter signal set with a compression curve function" / "the combined signal is convolved with a standard nonlinear compression curve" ('775 patent, claims 10, 18, 30, 38)

Defendants'/Intervenors' Construction	Finesse's Construction
Indefinite	Plain and ordinary meaning. Alternatively, to the extent that the Court believes these terms require construction: "combining signals to create a new signal from the composite transmitter signal set using a compression curve function"

The terms "convolving a composite transmitter signal set with a compression curve function" and "the combined signal is convolved with a standard nonlinear compression curve" are indefinite because when "viewed in light of the specification and prosecution history," they fail to "inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014).

For example, it is not clear in the context of the claims what nonlinear device the claimed "compression curve function" is supposed to model or what such a function would be. Ex. 3,

(Mahon Decl.) ¶¶ 87-88. The claim language also separately mentions a "standard compression model of a nonlinear device model," which may be related to the term "compression curve function," but by choosing to use different language to describe each, these terms should carry separate meanings, leaving the distinction between them ambiguous. *SIPCO, LLC v. Emerson Elec. Co.*, 794 F. App'x 946, 949 (Fed. Cir. 2019) ("Because the patentee chose to use different terms to define the 'receiver address' and the 'scalable address,' we presume that those two terms have different meanings."). The claim also provides no description of the type of function that is claimed. As Dr. Mahon explained, it is critical what ***form*** the function takes—*e.g.*, whether it is a "direct spline computations, frequency-dependent complex power series coupled with frequency-independent nonlinear amplifier model, linear regression technique to fit a basic polynomial model, swept continuous wave measurement to fit a two-tone amplifier model, etc." Ex. 3 (Mahon Decl.) ¶ 88.

Moreover, claims incorporating this term are directed to ***passive*** intermodulation products in the receiver. A compression curve, however, is generally associated with ***active*** components with gain such as an amplifier. *Id.* ¶ 87. As such, it is unclear how the claimed "compression curve function" is to be understood from the perspective of passive intermodulation products, which are the product of passive nonlinear devices. *Id.*; '775 Patent at 1:40-43 (passive IMPs are "signals created in passive components, usually created by imperfections in physical characteristics like waveguides, typically components without gain."). Unsurprisingly, even Finesse's own expert was unable to describe a "compression curve function" for a ***passive*** non-linear device:

> Q. Are you aware of a compression curve function for a non-linear passive device?
> A. I don't know. There might be. I haven't thought about that.
> ***Q. So, you don't know if you could describe a passive non-linear device using a compression curve function then?***
> ***A. Yeah, I don't know. I haven't thought about that.***

Ex. 4 (Wells Dep. Tr.) at 269:10-23.

The intrinsic record is entirely silent on this term. The term "compression curve function" is never used in the specification, and although "[t]here is no requirement that the words in the claim must match those in the specification disclosure," (*In re Skvorecz*, 580 F.3d 1262, 1268-69 (Fed. Cir. 2009)), no discussion or explanation of a "compression curve function" is provided in the specification either. Nor is the term "compression curve function" described in the prosecution history or even mentioned outside of the amendment that added this term to the claims. Ex. 5 ('775 File History) at 531-542 (prosecution history amendment adding "compression curve function" to the claims). The applicant's amendment adding this term did not identify any support in the specification either, confirming that it is not described in the specification.

Although Finesse quotes many passages from the patent in support of its argument, Finesse does not explain how they relate to the concept of a "compression curve function," and on their face these sections describe the distinct "power series description of the nonlinear process" recited in the independent claims, not a compression curve function. *See* Pl. Br. at 26-28; '134 Patent at Claim 4. Put another way, Finesse's cited intrinsic evidence sheds no light on what the additional limitation of "convolving a composite transmitter signal set with a compression curve function" means in the context of the invention. *See* Ex. 3 (Mahon Decl.) ¶¶ 81, 87-88. Finesse also confusingly argues that the "power series description of a nonlinear process" is the definition of a "compression curve function," but this definition does not appear anywhere in Finesse's own proposed alternative construction, which is "combining signals to create a new signal from the composite transmitter signal set using a compression curve function." Pl. Br. at 25 ("a skilled artisan would readily understand the term 'compression curve function' as used in the '775 patent to be 'a power series description of a non-linear process'"). Besides being inconsistent with

Finesse's own definition, its proposed construction is also clearly wrong because "convolution" is not a synonym of "combination," as its own expert admitted. Ex. 4 (Wells Dep. Tr.) at 255:16-18 ("There are instances where you could combine two signals to create a new signal, that wouldn't involve convolving."). Indeed, convolution is a particular mathematical operation following a specific formula. Ex. 6 (Comprehensive Dictionary of Elec. Eng'g) at 139; Ex. 4 (Wells Dep. Tr.) at 249:6-251:7. Because Finesse's proposed construction merely replaces "convolution" with the much broader term "combination," it should be rejected.

Finally, Finesse argues this term cannot be indefinite because Defendants' expert allegedly "concedes" that the term "convolving" and "compression curve function" have well-understood meanings. *First*, this is not true because Dr. Mahon actually opined that the claim term "is ambiguous at least because 'compression curve function' is not clear." *See, e.g.*, Ex. 3 (Mahon Decl.) ⁋ 78. Although a "compression curve" may be understandable to a person of skill in the art in some contexts, "what particular device the claimed 'compression curve function' is supposed to be modeling or what the function would be" here is "not clear." *Id.* ⁋ 87. And *second*, it does not matter whether the component terms of the phrase have well understood meanings if the full phrase is indefinite. *Illinois Comp. Res. LLC v. HarperCollins Publishers, Inc.*, No. 10 Civ. 9124 KBF, 2012 WL 163801, at *10-11 (S.D.N.Y. Jan. 19, 2012) ("There is no debate between the parties as to the literal meaning of the words 'said' or 'requests.' . . . The debate centers on the question of whether the claims provide a sufficient basis for determining what the requests are and who made them, that constitute the referred to 'said requests.'").

IV. CONCLUSION

For the foregoing reasons, the Court should adopt Defendants' and Intervenors' proposed constructions.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that counsel of record are being served this 9th day of June, 2022, with a copy of this document via CM/ECF.

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